Supplemental Guidance on Performance Measures

All NOAA programs are required to report annually on their performance to NOAA leadership, OMB, and Congress. NOAA has established performance measures for its matrix programs, and as part of the Ecosystem Research Program (ERP), the NSGO will report on Sea Grant's contribution to the ERP performance measures. The measures have been developed in the last two years and are intended to cover all ERP programs. Three of those measures (below) are well-suited to Sea Grant and capture a great deal of what Sea Grant is about.

While it is not necessary nor expected that each Sea Grant program will contribute to each measure, we hope that there will be a number of substantial contributions that the Sea Grant network collectively will be able to make to each measure. Please note that you are NOT expected to fit all of your program's activities into the confines of one of these measures – there are undoubtedly areas of your program that do not fit into these measures.

The GOAL for reporting on the measures below is to provide a target number for each of the measures that explains the likely anticipated outcome over the next year. **In other words, report on what you estimate to be the result of efforts that are already underway or recently completed.** Do NOT provide a listing of projects that you are planning to do.

For each measure, please indicate what your performance was in your previous omnibus year (e.g., actual 2006), and what you anticipate your performance to be in the coming year—or two years if you are preparing a two-year implementation plan (e.g., anticipated 2007).

As an example of what a report might look like:

Measure 1: Economic and societal benefits derived from the discovery and application of new sustainable coastal, ocean, and Great Lakes products from the sea.
2006 Actual:
8 new products discovered
4 new products applied to use
$2M generated in economic benefits and 55 jobs created as a result of the use of those products

2007 Anticipated:
4 new products discovered
3 new products applied to use
$1.2M generated in economic benefits as a result of the use of those products

---

Measure 1: Economic and societal benefits derived from the discovery and application of new sustainable coastal, ocean, and Great Lakes products from the sea.

Explanation: Society benefits from the discovery, exploration, and development of new sustainable coastal and ocean products (i.e. marine natural products, health, pharmaceuticals). Sea Grant's (and other NOAA programs') efforts to develop new drugs from marine organisms have resulted in the

discovery and description of more than 1,000 compounds that may be vitally important to the health industry. This measure tracks the economic benefits generated by NOAA's investment in new products from coastal, ocean, and Great Lakes ecosystems.

Sample report for this measure:
2006 Actual:
8 new products discovered
4 new products applied to use (list them if possible – i.e. antibacterial compound "Y")
$2M generated in economic benefits and 55 jobs created as a result of the use of those products

2007 Anticipated:
4 new products discovered
3 new products applied to use (list them if possible)
$1.2M generated in economic benefits as a result of the use of those products

Measure 2: Cumulative number of coastal, marine, and Great Lakes issue-based forecast capabilities developed and used for management.

Explanation: NOAA develops discrete forecast models that allow resource managers to make decisions based on predicted environmental and socioeconomic impacts related to a particular issue. Managers use these issue-based forecasts to predict the impacts of a single ecosystem stressor (i.e. climate change, extreme natural events, pollution, invasive species, and land and resource use) and in order to evaluate the potential of various management options.

These forecasts are based on field and laboratory studies, existing data, and models predicting environmental conditions under different scenarios. Forecast capabilities will be specific to a geographic area; they will be counted for each ecosystem as they become operational. For example, HAB forecasts in the Gulf of Mexico and Gulf of Maine will be counted as two separate forecast capabilities. Similarly, multiple, distinct forecast capabilities could be counted within a single ecosystem (i.e. NOAA may forecast HABs, pink shrimp harvest, and hypoxia in the Gulf of Mexico).

There has been significant progress toward this goal in recent years. Numerous examples include: pink shrimp harvest and Gulf of Mexico hypoxia forecast model development (2002), transfer of an operational Eastern Gulf of Mexico harmful algal bloom alert capability to NOAA's Coastal Services Center (2004), transfer of the Great Lakes Forecasting System to NOS CO-OPS and NWS (2005), and preliminary forecasts for domoic acid in Pacific NW razor clams, coral bleaching, MSX oyster mortality, and real time jellyfish prediction in the Chesapeake Bay.

Sample report for this measure:
2006 Actual:
2 new forecast capabilities developed
1 new forecast capability applied to use (list them if possible – i.e. new HAB forecast technique in Gulf of Mexico)

2007 Anticipated:

3 new forecast capabilities developed
1 new forecast capability applied to use (list them if possible)

Measure 3: Percentage/number of tools, technologies, and information services that are used by managers (NOAA and/or its partners and customers) to improve ecosystem-based management.

Explanation: This measure tracks Ecosystem Research Program (ERP) success in translating research findings into tools, technologies and information services that improve the use and management of coastal, ocean, and Great Lakes ecosystems. Examples of tools include: land cover data, benthic habitat maps, and environmental sensitivity index maps. Technologies refer to the transfer of new or underused approaches for addressing coastal management (e.g., remote sensing, biosensors, AUVs, genetic markers for fishery stocks) and resource development (e.g. culture systems for aquaculture, marine pharmaceuticals). This includes the application of technology to coastal resource management through synthesis, integration, training, and the development of new management tools. Information services would include specific technical assistance, directed education materials and curricula, targeted extension and training. Tools or techniques used for modeling or forecasting are measured elsewhere and excluded here. **The KEY here is for these tools and services to be utilized and applied by managers.**

Tracking the accessibility and application of information by target audiences will allow ERP to identify and expand its most effective programs and products. NOAA partners and customers include federal, state, local and tribal authorities who make decisions that affect the state of resources in the U.S. coastal zone, and other users whose actions impact the condition of coastal ecosystems (e.g., private industry, school children.)

Sample report for this measure:
2006 Actual:
12 tools and services provided
4 applied by managers in decision-making (list them if possible – i.e. aquaculture technical assistance resulted in 2 companies changing their procedure manual)

2007 Anticipated:
5 tools and services provided
1 applied by managers in decision-making (list them if possible)